TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Form PCT/IPEA/416
A2004/00238		
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/AT2005/000046	14.02.2005	16.02.2004

International Patent Classification (IPC) or national classification and IPC

E01B3/28

Applicant

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1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of _____ sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

   a. ☒ *(sent to the applicant and to the International Bureau)* a total of 4 sheets, as follows:

      ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s))

      _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒	Box No. I	Basis of the report
☐	Box No. II	Priority
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☐	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☐	Box No. VI	Certain documents cited
☐	Box No. VII	Certain defects in the international application
☐	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/AT2005/000046

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

☐ international search (Rule 12.3 and 23.1(b))

☐ publication of the international application (Rule 12.4)

☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ the international application as originally filed/furnished

☒ the description:

pages 1-21 as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☒ the claims:

nos. _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* 1-25 received by this Authority on /filed with the demand

nos.* _____ received by this Authority on _____

☒ the drawings:

sheets 1/3-3/3 as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

4. ☒ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/AT2005/000046

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-25	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-25	NO
Industrial applicability (IA)	Claims	1-25	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

1 The present application does not meet the requirements of PCT Article 33(1) because the subject matter of Claim 1 is not based on an inventive step within the meaning of PCT Article 33(3).

1.1 DE-U-29611823, see figures 1-3, is regarded as the closest prior art to the subject matter of claim 1, and discloses a double-cruciform sleeper (1) for placing on the ballast for railways, which has a transverse part running along a sleeper longitudinal axis and two longitudinal mounts (2.0) at a distance from one another above the transverse part, with each longitudinal mount (2.0) having a bearing on an upper face for holding a rail element which runs above the longitudinal mount, with the upper face of the longitudinal mounts being lowered in the direction of the lower face of a sleeper at the end area opposite the sleeper longitudinal axis.

1.2 The subject matter of claim 1 thus differs from the known double-cruciform sleeper in that (a) each

longitudinal mount has a plurality of holding devices for in each case one rail attachment element for holding a rail element on the longitudinal mount, with at least one of the holding devices being arranged offset transversely with respect to the sleeper longitudinal axis on at least one of the two longitudinal mounts, and (b) the upper faces of each of the longitudinal mounts being stepped in the direction of the lower face of a sleeper at the end area opposite the sleeper longitudinal axis, with a bearing length running over at least 2/3 of a sleeper width.

1.3 The problem elements addressed by the present invention can thus be considered those of (a) on the one hand providing a sleeper which allows rail forces, transverse forces and longitudinal forces to be absorbed variably and better, and (b) on the other hand allowing a connecting element for connection of two successive rail elements to be fitted to the sleeper once it has been laid, see page 3, paragraph 2.

1.4 The solution proposed in claim 1 of the present application cannot be considered inventive.

1.4.1 In fact, it is already known from rail construction for a plurality of holding devices for in each case one attachment element to be fitted to the longitudinal mounts of a double-cruciform sleeper, in this context see, for example, AT-B-410226, figure 1, in which case a

person skilled in the art would make use of this knowledge and would fit holding devices of this type in the same way to the sleepers in DE-U-29611823 in order to solve the first problem element.

1.4.2 The feature "stepped" appears to relate to only one of several obvious possibilities from which a person skilled in the art would choose according to the circumstances in order to solve the problem of interest, without thereby being inventive. Instead of a continuous flattened area on the longitudinal mounts, a person skilled in the art would thus consider a step, and would in this case design the longitudinal mount from DE-U-29611823 in this way. The choice of a bearing length of at least 2/3 of the sleeper width in this case appears to relate only to an exemplary value, see page 11/line 14, without any surprising effect.

1.4.3 Since, furthermore, there does not appear to be any relationship between the features at (a) and (b) since these can be used independently of one another and solve different problem elements, a person skilled in the art would in the end combine them with one another as the circumstances required without an inventive step, in the process arriving at a subject matter according to claim 1.

2 Dependent claims 2-25 do not contain any features

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

which, in combination with the features of any claim to which they refer, meet the PCT requirements for inventive step, in particular for the following reasons:

- claims 6, 8; holding devices in prior art can implicitly be deactivated as required, and an anchoring opening can implicitly be closed by a closure element;

- alternative with three holding devices, see claim 5, holding groove, see claim 7, structural measure, see US-A-1795817;

- claims 12-14; embodiment variant with two holding devices for rail attachment elements on one face and one on the other face of the rail element, DE-A-930522, see figure 3;

- claim 16; see AT-B-410226, figure 3; the further variant of an odd number of holding devices does not appear to form the basis of an inventive step;

- claims 17-20, 25; see WO-A-0179610, step, step width, step edge (figure 3, elliptical interruption surface appears to be a minor structural modification);

- claims 21-24; holding groove, see for example DE-A-19957223, figure 3a.